

1/9

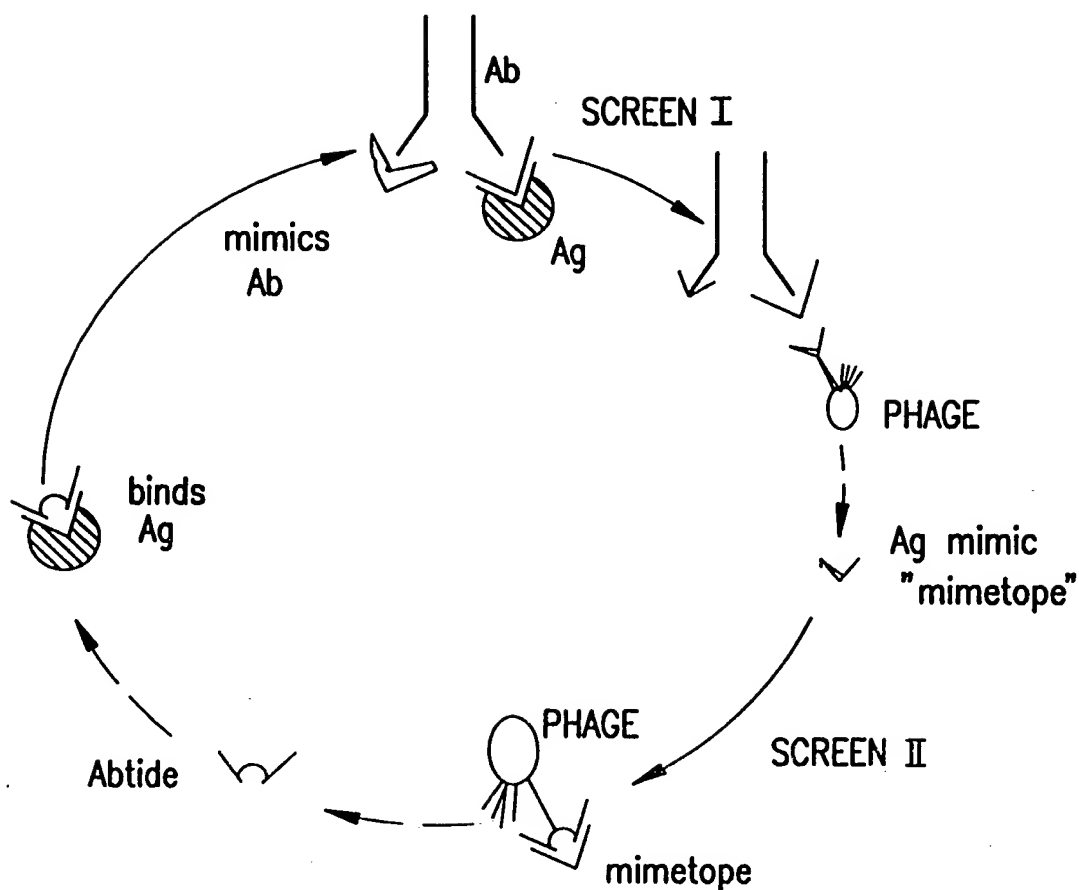
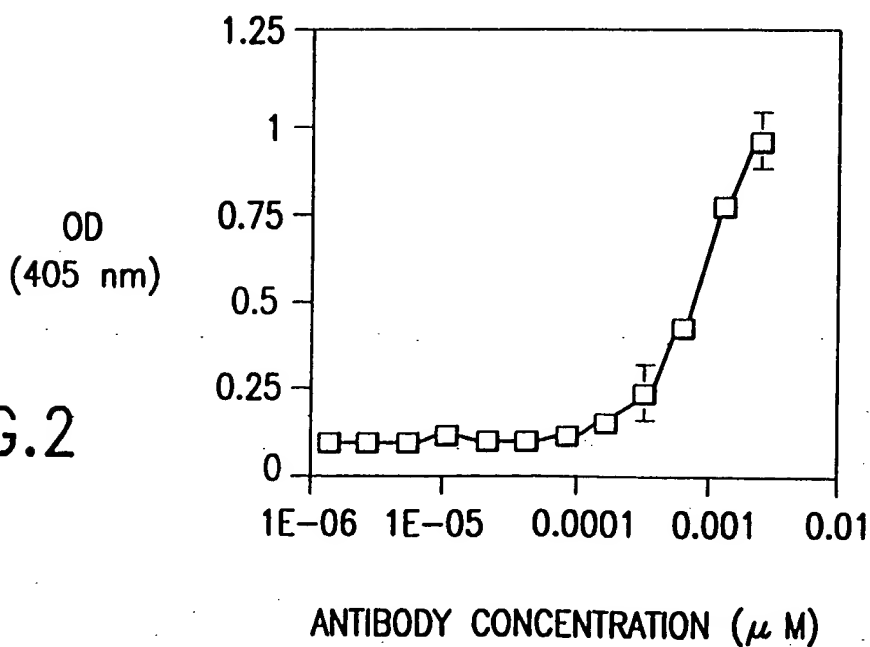


FIG. 1

FIG. 2



2/9

CLONE 14

GIINANDPLPFWFMS--PYTPGPAPIDINASRALVS-NESG

WQGTHFPYT

LVSKND SG

CDR3L

CDR2L

(5/9 = 55.5 %)

(7/8 = 87.5 %)

CLONE 17

DL-SRNLDGFRFLLYNA--YVPGFTPTFISLTAEHLSSPKG

LVSKN-DSG

WQGTHF-P-YT

CDR2L

CDR3L

(6/8 = 75 %)

(6/9 = 66.6 %)

CLONE 15

CGRAYCL-SGNYNIFGALFPGVS--TPYADVGHDDAQSWRR

LVSKN-DS-G WQG-THFPYT

CDR2L

CDR3L

(4/8 = 50 %) (6/9 = 66.6 %)

CLONE 13

RCSPIW-GIS-YPFGLSSNPGVCHSSDAET-NIRNDILTT

WQG-THFPYT

GSDN-K-SVL

CDR3L

CDR2L (REV)

(6/9 = 66.6 %)

(4/8 = 50 %)

CLONE 16

GHSNYCFVSTLGMPIVGFP-SINARGLIHYGGSDPR--LAA

WQGTHFPYT

GSDNKS VL

CDR3L

CDR2L (REV)

(3/9 = 33.3 %)

(5/8 = 62.5 %)

FIG.3

008710" 6.2848460

3/9

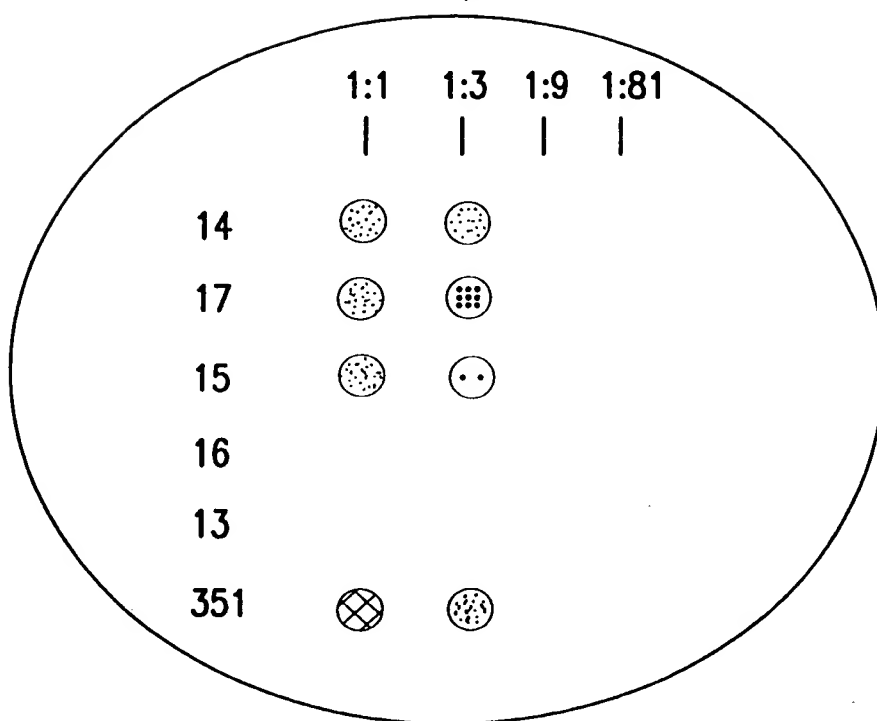
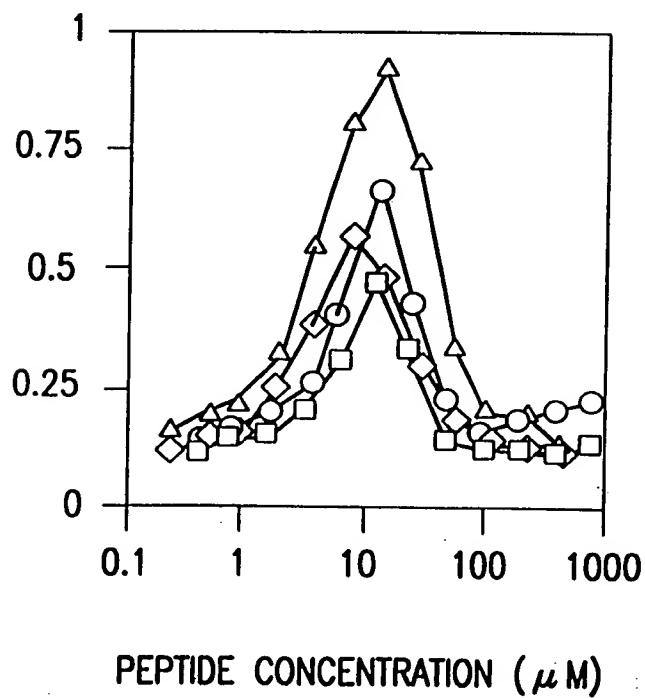


FIG. 4

OD (405 nm)

FIG. 5



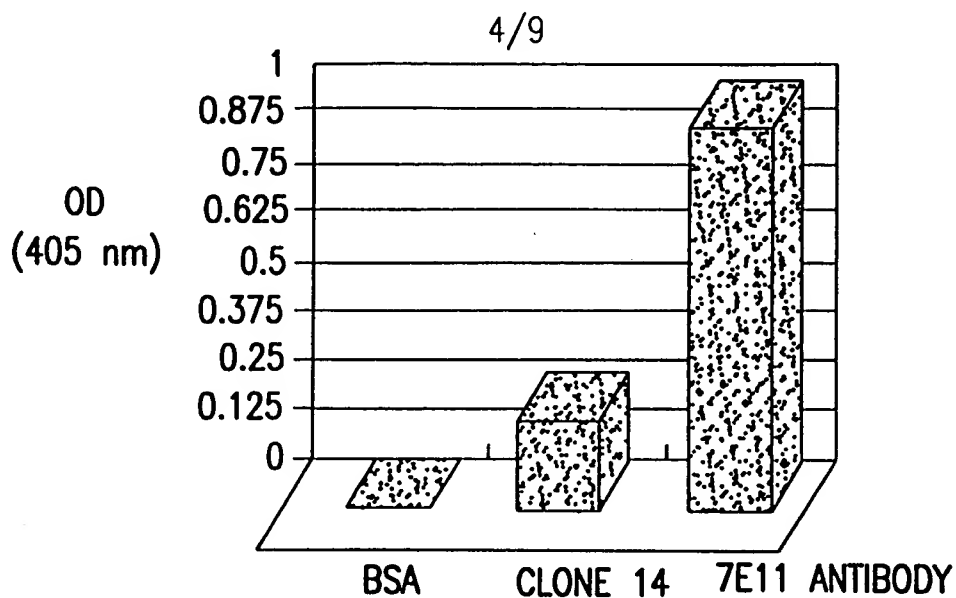


FIG.6

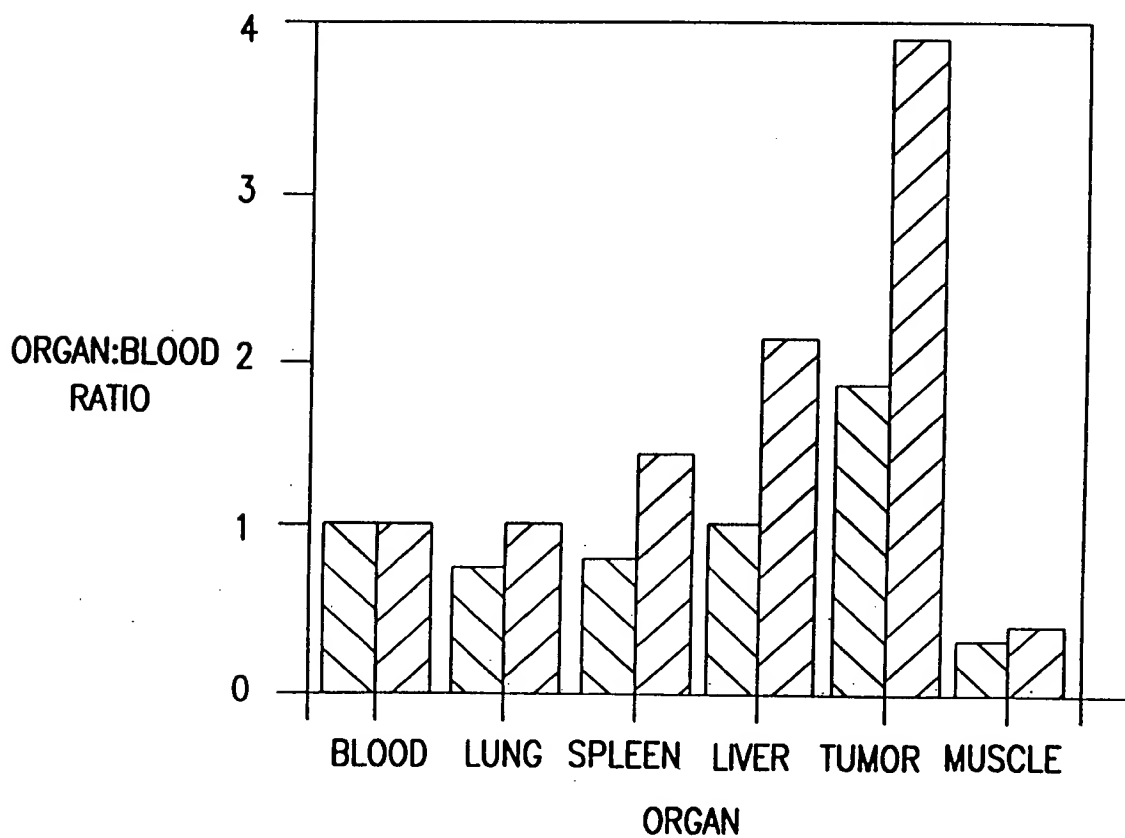
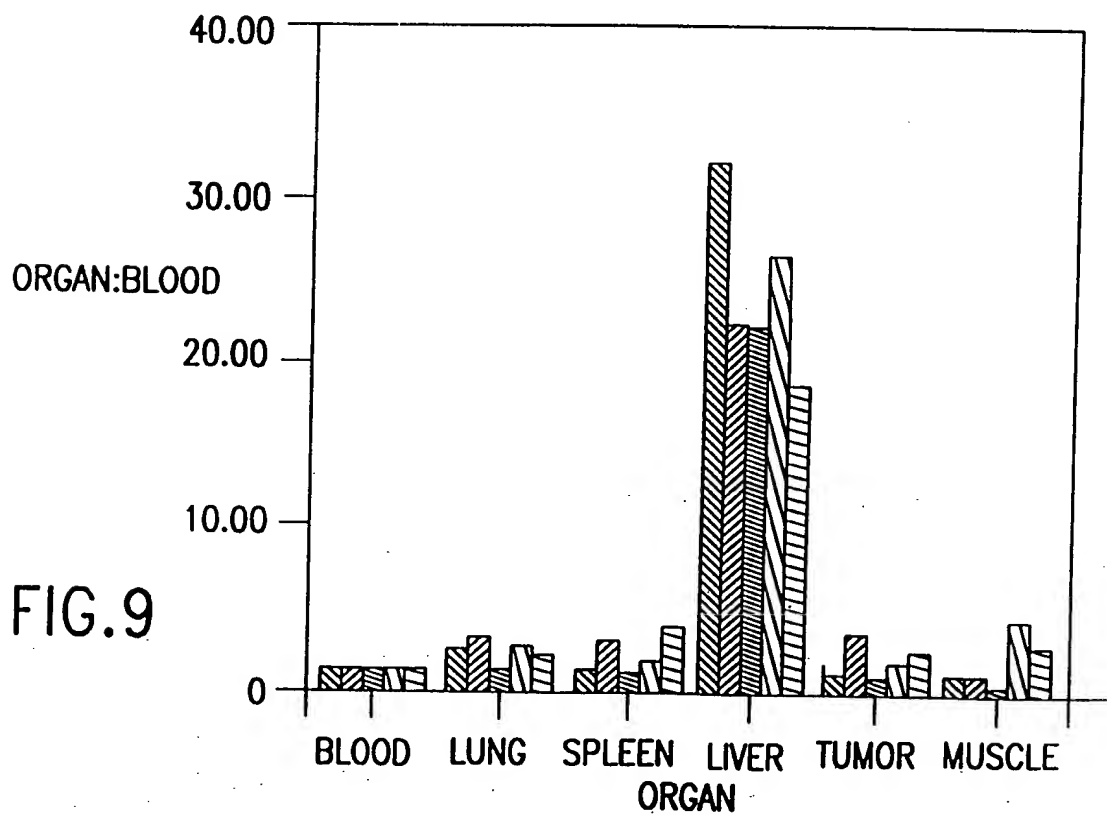
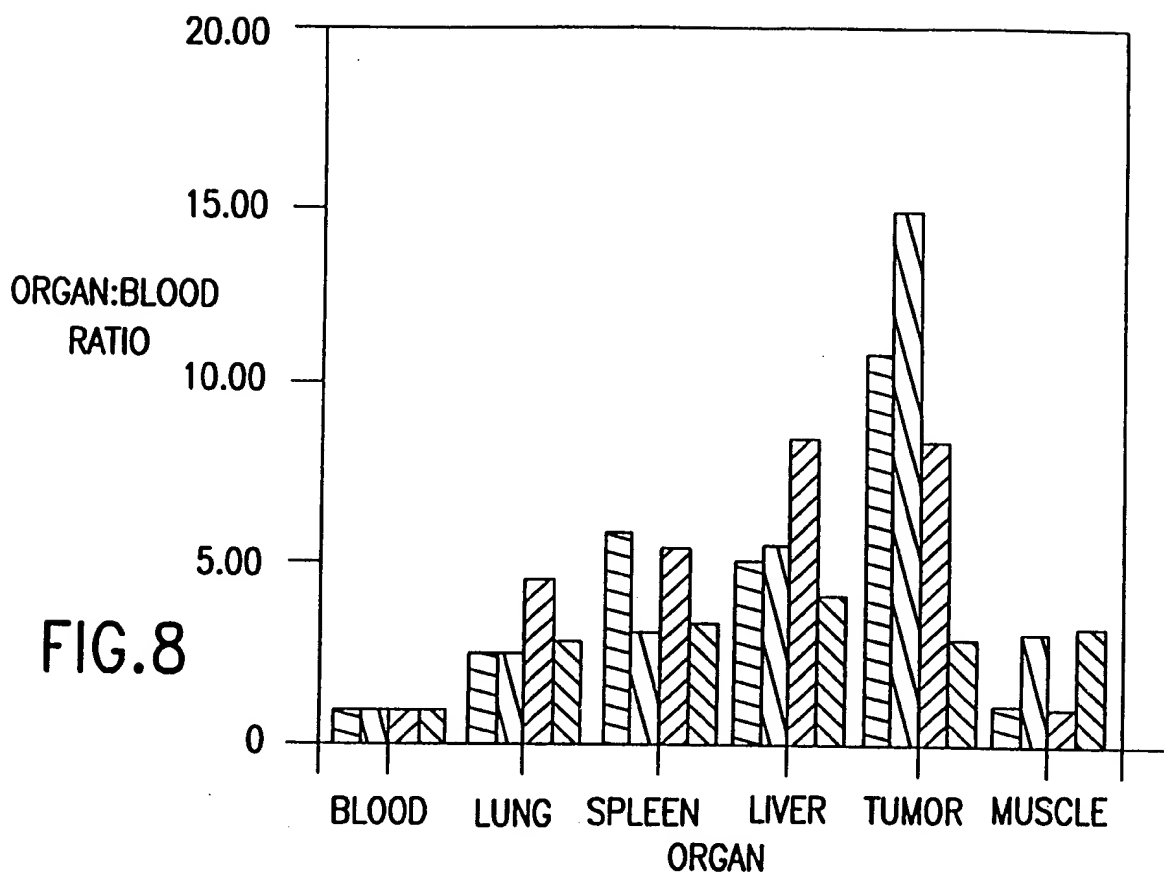


FIG.7

008170 62848460



008710" 62948460

6/9

c.tgt.gcc.tcg.agB.(NNB)₁₂.Ncc.gcg.g Sac II

N=A,G,T,C
B=G,T,C
V=G,A,C

gg.cgc.cNV.(NNV)₁₂.aga.tct.cgt.gtc

FILL IN WITH DNA POLYMERASE

Xho I

Ala

c.tgt.gcc.tcg.agB.(NNB)₁₂.Ncc.gcg.g

gg.cgc.cNV.(NNV)₁₂.aga.tct.cgt.gtc

Xba I

CLEAVE WITH Xho I + Xba I

tcg.agB.(NNB)₁₂.Ncc.gcg.g

gg.cgc.cNV.(NNV)₁₂.tga.tc

LIGATE WITH Xho I + Xba I -
CLEAVED M13 m663 VECTOR

ELECTROPORATE INTO XL1-BLUE

LIBRARY OF PIII-RANDOM SEQUENCE FUSION PROTEINS

... S H S S (S/R) X₁₂ π A θ X₁₂ S R P S R T ...

↑
SIGNAL PEPTIDASE CLEAVAGE SITE

π=S,P,T OR A
θ=V,A,D,E, OR G

FIG.10

0084879 011000

7/9

G TGT GTC TCG AGN (NNB)₂₀ NAC GCC AN

N=A,C,G,T
B=C,G,T
V=A,C,G

NTG CGG TNV (NNV)₁₅ AGA TCT GTG TTG

FILL IN WITH SEQUENASE

Xho I

G TGT GTC TCG AGN (NNB)₂₀ NAC GCC AN

NTG CGG TNV (NNV)₁₅ AGA TCT GTG TTG
Xba I

RESTRICT WITH Xho I AND Xba I

TCG AGN (NNB)₂₀ NAC GCC AN

NTG CGG TNV (NNV)₁₅ AGA TC

LIGATE WITH Xho I + Xba I -
CLEAVED M13mp18Xa

ELECTROTRANSFORM
E. coli JS5

D38 GENETIC DIVERSITY LIBRARY DISPLAYED AS RANDOM
N-TERMINAL pIII FUSIONS

. . H S S (S/R) X₂₀ (Y/H/N/D) A (I/M/T/N/K/S/R) X₁₅ S R

SIGNAL PEPTIDASE CLEAVAGE SITE

FIG.11

00570" 62848460

G TGT GTC TCG AGN (NNB)₂₀ GGT TGT GGT

N=A,C,G,T
B=C,G,T
V=A,C,G

CCA ACA CCA (NNV)₂₀ AGA TCT GTG TTG

FILL IN WITH SEQUENASE

Xho I

G TGT GTC TCG AGN (NNB)₂₀ GGT TGT GGT

CCA ACA CCA (NNV)₂₀ AGA TCT GTG TTG
Xba I

RESTRICT WITH Xho I AND Xba I

TCG AGN (NNB)₂₀ GGT TGT GGT

CCA ACA CCA (NNV)₂₀ AGA TC

LIGATE WITH Xho I + Xba I-
CLEAVED M13mp18Xa

ELECTROTRANSFORM
E. coli JS5

DC43 GENETIC DIVERSITY LIBRARY DISPLAYED AS RANDOM
N-TERMINAL pIII FUSIONS

. . H S S (S/R) X₂₀ G C G X₂₀ S R

SIGNAL PEPTIDASE CLEAVAGE SITE

FIG.12

008710 62848460

APPROVED: [Signature]
DRAFTSMAN: [Signature]

MP-1 oligo 2
5'-GGG-5'

FIG. 13